

WHAT IS CLAIMED IS:

1. A sheet material conveying apparatus provided with means for holding sheet material for holding a plurality of sheet materials on a stack;

5       a driving roller for feeding and conveying sheet material, and a driven roller to be in contact with said driving roller under a constant pressure to follow the rotation thereof, and

          the sheet material held by said means for  
10       holding sheet material being separated one by one by said driving roller and said driven roller, said apparatus comprising:

          a torque limiter having means for changing load torques to provide rotating load torque when  
15       said driven roller rotates in the conveying direction of sheet material, and to change said rotating-load torque; and

          operating means capable of operating from the outside of means for conveying sheet material the  
20       control of said rotating-load torque generated by said means for changing load torques.

2. A sheet material conveying apparatus according to Claim 1, wherein plural steps of said  
25       rotating load torque are made selective by said operating means.

3. A sheet material conveying apparatus according to Claim 2, wherein said operating means is a lever movable to plural positions.

5           4. A sheet material conveying apparatus according to Claim 1, wherein said torque limiter is provided with an inner race shaft forming a part of said driven roller shaft; a spring wound around the outer circumference of said inner race  
10 shaft; and means for changing load torques having a first spring-end fixing portion for fixing one end of said spring, and a second spring-end fixing portion for fixing the other end of said spring, being structured to rotate said second spring-end  
15 fixing portion by the rotation of its own with said inner race shaft as the center of rotation, and said means for changing load torques is made rotative by said operating means.

20           5. A sheet material conveying apparatus according to Claim 4, further comprising:  
a first actuator for providing said means for changing load torques with rotational force; and  
a first driving transmitting means for  
25 transmitting the driving power of said first actuator to said means for changing load torques.

6. A sheet material conveying apparatus according to Claim 1, further comprising:

means for changing loads for changing the pressurized-contact load between said driving  
5 roller and said driven roller, wherein  
said operating means controls said pressurized-contact load generated by said means for changing loads.

10 7. A sheet material conveying apparatus according to Claim 6, wherein the combinations between plural steps of said rotating-load torques and said pressurized-contact loads are made selective by said operating means.

15 8. A sheet material conveying apparatus according to Claim 6, wherein said means for changing loads is provided with a pressing spring for pressing said driving roller and said driven  
20 roller to be in contact with each other, and means for changing loads generated by said pressing spring.

9. A sheet material conveying apparatus  
25 according to Claim 6, further comprising:  
a second actuator for providing said means for changing loads with driving power; and

a second driving transmitting means for transmitting the driving power of said second actuator to said means for changing loads.

5           10. A sheet material conveying apparatus according to Claim 9, wherein said first actuator and said second actuator are shared for use.

10           11. A recording apparatus provided with an ink jet recording head for discharging ink to record recording information by recording means on a sheet material serving as a recording medium, said apparatus comprising:

            a sheet material conveying apparatus  
15   according to either one of Claim 1 to Claim 10;  
and

            means for changing distances to change the distance between the surface of said ink jet head facing the surface of said recording medium,  
20   wherein

            said operating means controls said means for changing distances.

            12. A recording system for controlling  
25   recording on a recording medium by a recording apparatus according to Claim 11, comprising:

            a host apparatus for transmitting recording

commands to said recording apparatus;

designating means for designating the kind of recording medium on said host apparatus;

transmitting means for transmitting to said  
5 recording apparatus the information of designated recording medium; and

controlling means for controlling said rotating-load torque generated by said means for changing load torques in accordance with the  
10 transmitted information of recording medium.

13. A recording system according to Claim 12, wherein said controlling means controls said pressurized-contact load generated by said means  
15 for changing loads.

14. A sheet material conveying apparatus comprising:

means for holding for holding a plurality of  
20 sheet materials on a stack;

a driving roller for conveying a sheet;

a driven roller for giving resistance to a sheet conveyed by said driving roller to retard the progress of the sheet not to be in contact  
25 with said driving roller;

a torque limiter for providing rotating-load torque when said driven roller rotates in the

sheet conveying direction;

biasing means for biasing said driven roller to be in contact with said driving roller under pressure; and

5       controlling means for changing at least one of the rotating-load torque of said torque limiter and the biasing force of said biasing means.

15. A sheet material conveying apparatus  
10 according to Claim 14, wherein

said controlling means changes at least one of the rotating-load torque and the biasing force of said biasing means in accordance with the kind of sheet.